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THE Unexplained

MYSTERIES OF MIND SPACE & TIME

94

A touch of the Sun
The king and the covens
Homoeopathy-does it work?
Bible and the paranormal
A UFO comes to town

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THE Unexplained
MYSTERIES OF MIND SPACE & TIME

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In next week's issue
The mermaid has a long history in folklore. In a special article on **Merfolk** we ask if these creatures really were fish-tailed humans or merely sea mammals. A phantom nun, apported sugar, flying keys and mysterious raps – **Borley Rectory** questions whether these events were true phenomena or fraud. Photographs of the spirit world have long been controversial – and many have been proved fakes. A handful, however, resist conventional explanation. We print a special selection and examine the evidence in **Spirit photography.** Astronomers have lately come up with a startling idea – that the Sun has 'gone out'! Find out why in the next part of **The Sun**. ESP, speaking in tongues and levitation – all these feature in the Bible. The acts of the Apostles and the miracles of Jesus are tested in the light of psychical research in **Bible mysteries.**
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The Old Testament is full of 'signs and wonders', miraculous events that seem frankly impossible to the sceptic. But, as DAVID CHRISTIE-MURRAY shows, they bear a similarity to many paranormal events down the ages

For it is written...

THE BIBLE CONSISTS OF 66 books (80 including the Apocrypha) written over about a millennium, although some of its material is derived from far older oral tradition. Like most ancient writings it recounts paranormal incidents, though a student of psychical research will be surprised by their comparative absence and the general soberness of the history. Psychical researchers have, however, investigated the Bible comparatively little, partly because of a distrust of records so ancient by writers with such different outlooks from their own, partly because they hold that it is psychical research that throws light upon the Bible, not the Bible that contributes to psychical research.

Many people also feel that Holy Writ is sacrosanct, the Word of God, to be accepted, not studied – except as a guide to devotion and righteous living – and never to be criticised. Others see in it no more value than is contained in any collection of ancient writings. But it is possible to take a middle way: one can apply the principles of scholarly criticism to the Bible as to any other book, though without preconceptions, recognising that further discoveries are continually modifying present knowledge, and respecting the views of others. Whatever the findings of modern critics, the book has a unique value, recording the evolution of the conception of God from primitive animism to the most ethical monotheism, influencing three major religions, Islam, Judaism and Christianity.

Certain types of paranormal activity are

Above: Jacob's momentous dream of the ladder that reached down from heaven, upon which angels climb. The Lord spoke to him, bestowing on him the land on which he slept, adding: 'For I will not leave thee . . .'. Could this dream have been a subconscious safety mechanism to reassure the exiled Jacob and to give him a sense of purpose? Whatever its cause, it drastically altered not only his own life, but that of the entire Israelite nation

Right: Saul consults the 'witch' of Endor, who was probably a medium. Such consultations were strictly forbidden by Judaic law

missing in the Old Testament because its editors were followers of Yahweh (Jehovah), whose worship included prohibitions such as, 'Thou shalt not suffer a witch to live.' Their 'good' kings annihilated those with familiar spirits (mediums). Only one account of spiritist activity in Israel is extant, that of Saul's visit to the medium – 'the witch' – at Endor, to enquire his fate of the dead prophet, Samuel (1 Samuel 28). That visit is recorded as his final sin against God.

Other paranormal phenomena in the Old Testament include divination, possibly dowsing, precognitive dreams, mystical experiences, healing and precognition.

Divination had to be carried out under the auspices of Yahweh. Old Testament 'prophets' were regarded not as diviners but as religious and political commentators, and therefore were judged to be 'true' or 'false' not so much by the accuracy of their forecasts as by the gods they followed. The prophets of Baal were 'false' because their god was Yahweh's rival, whereas Jeremiah was 'true', even though his oracles were sometimes mistaken, because he served Jehovah. So Yahweh's high priest was provided with means of divination, 'the Urim and the Thummim' ('Lights and Truths'), apparently semi-precious stones set in his breastplate, which he may have used for a kind of crystal-gazing (Exodus 28). But on the whole, individuals devised their own methods of divination or of reading meaning into symbolical 'signs'. Thus Gideon knew that God would grant him victory because one night dew fell on a fleece while the ground around was dry and the next night the process was reversed (Judges 6).

Moses, finding water in the desert by the use of his rod (Exodus 17 and Numbers 20), may have used dowsing techniques. But though a visionary, he was no dreamer, and revelatory dreams are possibly the commonest paranormal phenomena in the Old Testament. Jacob's ladder dream (Genesis 28) repeated the promise made to his grandfather, Abraham, that his descendants should possess the very land on which the vision was dreamed. Joseph dreamed of his future lordship over his family (Genesis 37) and foresaw from the dreams of Pharaoh's imprisoned butler and baker that the former would be restored and the latter executed. His successful interpretation of Pharaoh's dreams foretelling seven years of plenty followed by seven of famine – of seven healthy kine (cattle) being eaten by seven feeble kine – resulted in his own promotion to high office (Genesis 40).

Right: Elijah is taken up by God in a 'chariot of fire' and disappears from the sight of men. Some modern writers believe that this is a primitive description of a UFO abduction, while many consider the language visionary, as in Blake's *Jerusalem*: 'Bring me my bow of burning gold, bring me my chariot of fire . . . . But whatever really happened, the Bible records several sudden disappearances, mainly of the chosen prophets of the Lord

Far right: Moses hears the Lord speaking to him from the burning bush. Was this an hallucination – or genuine paranormal combustion?

Above: Joseph finds favour with Pharaoh by interpreting his dreams. The dream of seven healthy cattle being eaten by seven lean cattle Joseph interpreted as a prediction of seven years of prosperity being followed by seven years of famine. This happened, but because of the dream's warning Pharaoh had been able to build up stocks of food for the time of famine. Modern psychologists have confirmed that we often dream in symbols – such as cattle – and precognitive dreams may be widespread, but unfortunately such dreams are often ignored

Dreams of yesterday

In the light of modern dream research, from experiments carried out by such agencies as the Maimonides Dream Laboratory, we could conclude that these dreams happened as recorded. Jacob, leaving territory in which he had spent his youth, with thoughts that it might be for ever, could have been comforted by his dreams reminding him of God's promise to Abraham, which in turn made his own return probable. Joseph, knowing the reasons for the butler's and baker's imprisonment, needed no remarkable insight to interpret correctly the symbolism of their hope and fear.

The mystical experiences of different individuals vary in type and intensity. At a crisis of his life, Jacob wrestles with a mysterious but beneficial supernatural being (Genesis 32). An angel (that is, a messenger – not necessarily supernatural, though often so) appears to Samson's parents, foretelling their hero son's birth, and leaves them by ascending in an altar flame (Judges 13). The child Samuel, first of the great biblical prophets, has his first experience as a sensitive when he clairaudiently hears the voice of

God (1 Samuel 3). Every prophet seems to have had similar experiences, from Isaiah's vision in the Temple of 'the Lord . . . high and lifted up', attended by seraphim (Isaiah 6), to Ezekiel's sight of four great rings, full of eyes, their motion accompanied by a rushing sound (Ezekiel 1).

Other questions arise when one considers the wonder-stories surrounding the biblical folk heroes. Around individuals such as King Arthur and Robin Hood, who have a kernel of historicity, tales gather that are self-evidently legendary accretions. While fundamentalists deny that the Bible contains anything of the kind, most scholars would say that many stories, such as those of Samson's carrying away the city gates of Gaza (Judges 16) and Elisha making iron float (2 Kings 6), are of this kind, and that every account must be examined according to the principles of normal historical and literary criticism. A balance must be held.

Modern knowledge shows that some incidents that would have been considered pure legend at the beginning of the 20th century are at least possible, especially in the realm of healing. Although healing comes into its own in the New Testament, there are a few examples of paranormal healing in the Old Testament. Miriam, punished with leprosy for a revolt against Moses, is restored by his prayer (Numbers 12). Gazing upon the brazen image of a serpent heals Israelites bitten by snakes in the wilderness (Numbers 21). The image survived until its superstitious veneration caused it to be destroyed by Hezekiah, King of Judah, himself cured of an otherwise fatal abscess by a fig poultice. This event was signalled by a marked retreat of the shadow on the sundial (2 Kings 20), an event for which fundamentalist apologists claim there is astronomical evidence. Naaman, the Syrian general, was cured of leprosy by distant healing when Elisha, without seeing him, sent a message instructing him to bathe in the river Jordan seven times (2 Kings 5). Elijah restored a dead boy to life by stretching himself three times upon him (1 Kings 17). Elisha apparently used a 'kiss-of-life' technique on another, placing 'his mouth upon his mouth, and his eyes upon his eyes, and his hands upon his hands; and he stretched himself upon the child: and the flesh of the child waxed warm' (2 Kings 4). Since there are, in the literature of psychotherapy and psychical research, well-attested instances of chronic skin diseases being cured by hypnosis, and others of cures being effected by mental action at a distance, it would be unwise to reject dogmatically the possible truth of these stories.

Right: God shows his power by igniting his prophet Elijah's sacrifice – while that of the Baal worshippers remains unlit, despite their frantic pleas. Spontaneous combustion is common in the Bible – and, according to Charles Fort and other collectors of tales of anomalous phenomena, not unknown in the lives of ordinary people even today

Below: the 'pillar of cloud' that assured the Israelites of God's presence during the daytime

And there are several other parallels with unexplained phenomena today. Mysterious disappearances occurred then as now (see page 281). Genesis 5:24 states dramatically that 'Enoch walked with God: and he was not: for God took him.' Moses was cryptically recorded as being 'buried by God' (Deuteronomy 34) – where is not known – but Josephus, the Jewish historian, records a tradition that 'a cloud stood over him [Moses] of a sudden and he disappeared in a certain valley.' And Elisha tells of Elijah's departure alive in 'the fiery chariot' (2 Kings 2).

Paranormal fire occurs frequently in the Old Testament, not unparalleled today if the stories of spontaneous human combustion (see page 24) are true. Such could have been the poetic justice of the rebels Nadab and Abihu, devoured by fire for offering 'strange fire' before the Lord in rivalry to Aaron, the appointed high priest (Numbers 3). The spontaneous combustion of 250 other rebels (Numbers 16) is more difficult to accept, though one can imagine the possible occurrence and exaggerated report of a number of deaths occurring simultaneously from

The literal truth?

A river that turns to blood, plagues of frogs, and the mysterious deaths of the firstborn – these are among the plagues of Egypt as recorded in the Old Testament. Even many theologists maintain that these afflictions cannot possibly have happened as described, although similar events are recorded today.

Red rain fell in Newfoundland in 1890; frogs cascaded onto a bewildered Athens in 1980, and the large hailstones that fell near Clermond-Ferrand, France, in 1873 did no harm for they fell *slowly*. And on 14 June 1880 red, blue and grey hailstones fell in rapid succession in one small area of Russia.

Grievous afflictions such as the deaths of the Egyptian firstborn could well have been the effects of a curse for, as reports suggest, curses can work (see page 1761). The plagues, and other paranormal manifestations such as the parting of the Red Sea (left), may have been brought about by Moses himself, using psychic means. American parapsychologist Rex G. Stanford's theory of psi-mediated instrumental response – PMIR – (see page 1570) allows that quite ordinary people can psychically cause things to go their way, but only when in extreme need. But Moses was no ordinary man and his people were being threatened with extinction – a combination that may well have unleashed formidable powers.

lightning. Cloud and fire were symbols of the divine presence, cherubim and seraphim being originally cloud and lightning spirits. The Israelites were led through the wilderness by a 'pillar of cloud' by day and a 'pillar of fire' by night (Exodus 13), though for those who like rational explanations, the smoke and fire may have come from a brazier carried at the head of the wanderers – for them, however, it may have been none the less symbolic of God's guidance.

On many occasions God 'answers by fire' in mysterious ways, though the origins of the stories may often lie in priestly legerdemain. Heaven-sent fire ignites altars for Moses and Aaron (Leviticus 9), Gideon (Judges 6), David (1 Chronicles 21) and Solomon (2 Chronicles 7). Elijah calls down divine fire to consume bands of men sent to apprehend him (2 Kings 1). The supreme example of God's fire is in the dramatic scene on Mount Carmel, when Elijah's sacrifice, drenched with water, bursts into flame after Baal's prophets had failed to win fire from their god to ignite their offering (1 Kings 18). Perhaps, say the rationalists, lightning, preceding the storm that ended three years of drought, ignited Elijah's sacrifice. Or does the answer lie in conjuring tricks, or the fictional accretions of folk legend? Are all such 'paranormal' events explicable by natural law? After so many centuries, nothing can be proved or disproved.

Other instances of apparent paranormalities in the Bible could well have had natural causes. The 'burning bush' from which God's voice called Moses to lead Israel from Egypt (Exodus 3) could have been a wisp of gas escaping from the oil-rich desert and ignited by the Sun's rays, concentrated by the burning glass of a crystalline stone. Flickering in the wind, it could have looked like a bush blowing from side to side. The plagues of Egypt (Exodus 7) could have occurred because excessive deposits of red clay turned the water to stagnant 'blood', which bred an excess of frogs whose piled-up, decaying bodies bred 'lice', the larvae of swarms of flies that caused the horrifying disease in cattle and the 'plague of boils' in humans. The crossing of the 'Red' – or 'Reed' – Sea can be explained in different

Joshua and his men, having marched repeatedly around the walls of Jericho, sound their trumpets – and the walls crumble. Some modern commentators suggest that the vibrations set up by the marching were reinforced by the bugle blast, having a disastrous effect on walls that were perhaps already in a state of bad repair

ways according to the various locations where the crossing may have occurred. It has been suggested that the similar miracle, which occurred years later, of the dry-shod crossing of the river Jordan (Joshua 4) was caused by the temporary blocking of the river by an earth tremor. The same tremor could so have weakened Jericho's walls (shown archaeologically to have been shoddily built) that the rhythmic tramping round them of the Israelite army and the resonance of the blast of the rams' horns were enough to 'bring them tumbling down' (Joshua 6).

Bread of heaven?

Crossing the desert the Israelites were fed with 'manna' from heaven. This is widely believed to have been the exudation of tamarisk shrubs, which is still used as food by Bedouin. It is, however, produced only in small quantities, and the paranormality of the biblical account lies in the quantity produced – enough to feed an entire nation – and the fact that twice as much was produced every Friday so that the work of gathering manna should not profane the Saturday Sabbath. And Elijah was fed morning and evening by 'ravens', which brought him meat and bread. But the Hebrew word for ravens is the same as that for 'merchants' or 'Arabs'.

Nearly a quarter of the Old Testament is occupied by writings of the political commentators known as the 'prophets'. Precognition – 'prophesying' – is therefore the paranormal phenomenon most associated with it, for in popular thought prophets foretell the future. There are indeed many stories of prophecies that were fulfilled, most of which can be paralleled in other cultures. One example is Elisha's forecast that within a day the starving city of Samaria, besieged by the Syrians, would have a wealth of provisions, and that a certain lord, who had scorned his prophecy, should see the food but not eat it. Against all expectations the food arrived; the lord, supervising its distribution at the city gates, was trampled to death in the rush for it (2 Kings 7).

The Israelites gather manna in the desert. Rationalists say that the sticky, sweetish substance must have been the exudation of the tamarisk shrub. However, the manna appeared in precisely the right amount, even according to individual appetite, and twice as much appeared on Fridays to avoid breaking the law by collecting it on the Saturday Sabbath. It seems possible that some paranormal mechanism was involved, but whether induced by some outside intelligence – 'the Lord' – or through the psychokinetic powers of Moses we shall never know

When the prophets spoke of the future they nearly always did so conditionally – if you do not walk in God's way, this [disaster] will happen; if you do, it will not. Other prophecies are not what they seem. 'Behold a virgin shall conceive and bear a son' (Isaiah 7:14) is not, as widely believed, a prophecy of the virgin birth of Christ. The word that was translated as 'virgin' means, in fact, a young married woman. The text continues: 'For before the child shall know to refuse the evil, and choose the good, the land that thou abhorrest shall be forsaken of both her kings.' It seems that Isaiah in effect pointed at a pregnant young woman – possibly his own wife – and indicated that King Ahaz's two enemies would be destroyed before the child could grow up. This is one case where a parochial interpretation of the text makes most sense.

The prophets aimed not so much at foretelling the future as at describing what they saw as the will of God in the circumstances of their time. But in doing this, their prophecies *were* fulfilled, often in ways more profound and long-lasting than they ever imagined. Isaiah's 'virgin' statement is one example of this. These multi-meaning prophecies that reverberated down the ages culminated, Christian scholars claim, in the miraculous life of Jesus Christ in the New Testament.

The miracles of Jesus are examined in the light of psychical research on page 1886

Jonah emerges from his ordeal in the stomach of a whale. As with the Old Testament book of Daniel, there is no point in assuming a literal interpretation, for both books were written as fictional moral tracts

Enormously diluted solutions of natural remedies are the medicines used in homoeopathy, which has flourished for nearly two centuries. RUTH WEST describes evidence suggesting that homoeopathy may have a sound – if highly obscure – basis

A potent remedy?

Above: old tincture bottles line the shelves of A. Nelson and Co., the British makers of homoeopathic medicines, at their London premises. The pharmacy was begun by Ernest Louis Ambrecht, a fellow countryman and contemporary of Samuel Hahnemann (inset), the founder of homoeopathy. Hahnemann taught three fundamental principles: that a disease can be cured by very small doses of a medicine that in large doses causes the symptoms of the disease; that extreme dilution enhances the medicine's curative properties and removes its harmful side effects; and that a medicine must be prescribed only after study of the whole person, including his temperament

THE STATUS OF THE UNORTHODOX medicines is problematic. Do they have a direct physico-chemical effect on the body that can be measured and understood? Or are they placebos, depending on the faith of the patient in their efficacy – a faith that may be enhanced by a good therapeutic relationship between practitioner and patient?

The problem is acute in the case of homoeopathy. Homoeopathic medicine claims to deal with more than the physical condition of the sick person. The selection of the correct remedy takes into account the psychological make-up of the patient and his current emotional state, as well as the physical complaint.

Furthermore, the homoeopathic physician does not send his patient off for numerous tests. Rather he builds up a picture of the symptoms, derived from what he can observe together with what the patient reports of himself: how he feels at certain times of day, what aggravates or relieves his symptoms, what his habits are and so on. The doctor believes that all the details of each patient together constitute a meaningful pattern that can suggest the correct remedy. As James Tyler Kent, one of the 'fathers' of homoeopathy, has said:

> The homoeopathic physician has no remedy for the name of a disease. Homoeopathy is an exact science. It is based upon a natural law, and the true physician must prescribe in accordance with this law of nature. Homoeopathy has no specific for any disease by name, but it has a true specific for each individual case of disease.

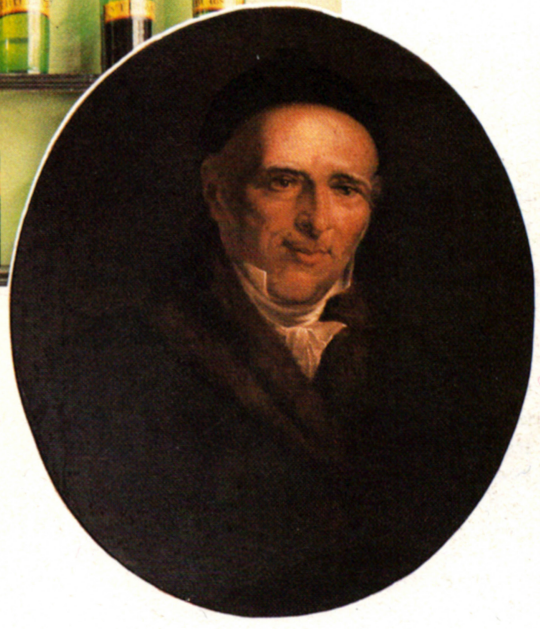
Homoeopathic treatment is based upon the successful application of the 'law of similars': treat like with like. Homoeopathy was founded by Samuel Hahnemann, a German physician, in the late 18th century. He came to believe that the appropriate medicine for a sick person was one that, when given in small doses to a healthy person, produced precisely the same set of symptoms presented by the sick person. He regarded the symptoms as the person's own healing reaction to whatever disease was assailing him. The idea had been presented before, notably in the writings of Hippocrates and in the *Medical observations* of the English physician Thomas Sydenham, written in 1676.

As Harris Coulter has pointed out, there are a number of drugs used in orthodox medicine that produce the same symptoms, when administered to a healthy person, that characterise the disorders for which they are prescribed.

There are also superficial resemblances between homoeopathic practice and vaccination. A vaccine stimulates the body's defensive system so that it will be able to deal with future attacks by particular disease-causing organisms. The person vaccinated often develops mild symptoms of the disease. But the differences between the two procedures are significant. Homoeopathy does not seek to immunise but to heal. Vaccines are administered in doses that are identical in composition and quantity. The homoeopath searches for the particular remedy that will produce just those symptoms displayed by the patient and so will trigger the healing response.

The feature that truly separates homoeopathy from present-day 'scientific' medicine, however, is that its medicines are administered in doses that are minute – in fact, infinitesimal. They are so enormously diluted that probably not a single molecule of the original therapeutic substance remains.

There is scientific backing for the value of a certain degree of dilution. According to the



Above right: beautiful structures formed by crystallisation from a solution of chromium and nickel salts, to which a small amount of a homoeopathic 'mother tincture' has been added. The patterns that appear depend on the chemical nature of this tincture, which is a relatively concentrated homoeopathic solution from which the highly diluted medicines are prepared

Arndt-Schulz 'law': 'every drug has a stimulating effect in small doses, while larger doses inhibit, and much larger doses kill.' Although this dual action of drugs is well-established, orthodox medicine nonetheless balks at the extreme dilutions used in homoeopathy. A 'small' dose in ordinary medicine is massive by homoeopathic standards. It is felt by conventional doctors that drugs are meant to kill off diseases, rather than to help bodies to heal themselves.

The preparation of the medicines adds to the mystique surrounding homoeopathy. The therapeutic substance is converted into the medicine by vigorous shaking alternating with successive dilutions. This must be done in just the right way to 'potentise' the medicine: mere dilution is held to be less effective.

Homoeopaths are concerned with producing scientific evidence and explanations for their treatments, and they are open to scientific scrutiny. A great deal of research has been undertaken, mainly in France, Germany, Switzerland, India, Britain and the United States. It has been conducted on plants, animals and micro-organisms.

But a study of the results is not likely to reassure doubters or convert sceptics. An informal report made by Dr Jean Kollerstrom for the British-based Scientific and Medical Network was forced to conclude that very little published work in this field stands up to rigorous statistical analysis, or meets the necessary standards of repeatability.

For example, between 1941 and 1954 Dr William Boyd of Glasgow University carried out research that had striking results. He measured the rate of chemical reactions involved in processes of growth, and the effect of mercuric chloride on the rate. Normally mercuric chloride acts to inhibit growth. But his results showed that minute doses stimulated growth. His work was analysed independently by four teams of statisticians, and they confirmed Boyd's conclusion. Unfortunately this impressive result has never been repeated, and a fundamental demand of scientific research – that a claim cannot be regarded as substantiated until the same effect has been obtained by more than one researcher – remains unsatisfied.

In 1980 the Scientific and Medical Network attempted to replicate the work of two Dutch scientists, Amons and Manavelt, carried out a few years previously. They had measured the effect of highly diluted mercuric chloride on the growth of cells called lymphoblasts, produced by a mouse tissue culture in the laboratory. The Dutch workers found, again, that the mercuric chloride affected the growth of the cells.

However, the Network team found no such effect in two series of their own experiments. In fact there was neither stimulation nor inhibition of the growth of the lymphoblasts. Dr Kollerstrom commented:

> Our results afford another example (of which there are several in the literature) of non-repeatability in this type of experiment. For the benefit of sceptical readers who would like to discard this tiresomely inexplicable phenomenon by assuming that it is due to sloppy experimentation or to inadequate experimental details having been given in the literature, I would like to state that in my opinion this is not often the case . . . . The point I am making, hesitatingly and with reluctance, is that one may be forced to admit that non-repeatability, when one is working on the fringe of what one hopes may be considered scientific, may have to be accepted as a 'fact' not due to human carelessness or to wishful thinking (in the first place), and presumably not due

to bloody-mindedness on the part of the cell or organism. Thus we seem to be left only with the choice of 'experimenter effect' or 'other factors beyond our knowledge'.

The writer Fritjof Capra, formerly a physicist, has said that homoeopathy lacks any scientific explanation. He asks whether homoeopathy should not be understood in terms of a 'resonance' or 'tuning' between the patient and the medicine. The metaphor suggests a strong response being called forth from the patient's healing systems by a relatively weak, but finely adjusted stimulus, the medicine – just as a loud note is given out by a piano string if it is precisely in harmony with some note played on another instrument. But Capra goes on to state that 'one is tempted to wonder whether the crucial resonance . . . is not the one between the patient and the homoeopath, with the remedy merely a crutch.'

It may be tempting to see homoeopathic approaches to medicine more in terms of psychotherapy or faith healing than as a form of drug treatment, but this is to ignore other aspects of the research literature and the more informal evidence from clinical case studies.

Above: a medicine cabinet used by Samuel Hahnemann. Since homoeopathic tinctures are used in extreme dilution, only a small quantity of each is required. Hahnemann's own handwriting appears on the stoppers of the phials

Below: in a homoeopathic laboratory the potency, or power, of a medicine is, paradoxically, increased by a sequence of dilutions, each followed by 'succussion', a vigorous shaking. A commonly used potency is '30c' – the result of 30 successive hundredfold dilutions. No physical trace of the tincture then remains

A clinical trial was conducted in 1980 in Glasgow, Scotland, on the effect of homoeopathic therapy in rheumatoid arthritis. The results showed that patients receiving orthodox drug treatment together with individually prescribed homoeopathic drugs improved more than patients receiving orthodox treatment together with a placebo – some inert substance that they were led to believe was a medicine. This difference was due to the drugs and not to the doctors involved. By 1982 only one such trial had been conducted.

One major breakthrough in replicating homoeopathic research was, however, achieved in 1981. Raynor Jones and Michael Jenkins, working at the Royal London Homoeopathic Hospital, successfully repeated experiments first carried out by Pelican and Ungar. They had found that substances in extremely high dilutions affected the growth of wheat seedlings. The original work had been described by Dr Kollerstrom as 'the most exhaustive and meticulous study yet carried out on seedlings'. With its corroboration we may now have a body of scientific evidence validating the claim of homoeopaths that their remedies – even when diluted so much that not a single molecule is left – have an effect on living things.

Another impressive piece of evidence that has to be taken into account before homoeopathy is dismissed is the record of successful homoeopathic treatment given during the great cholera epidemic that swept Europe in the 1830s. And the Royal London Homoeopathic Hospital has well-documented evidence stretching over many years,

Left: monkshood, a poisonous plant. The homoeopathic medicine made from it is used at the onset of certain acute conditions, such as fevers and colds, and also for treating chronic anxiety

Right: the Christmas rose, used to make homoeopathic remedies for certain severe disturbances, involving unconsciousness, muscular weakness, grinding of the teeth, and so on. An advantage of homoeopathic remedies in such cases is that only a little needs to be slipped into the mouth, where it can be absorbed even if it is not swallowed

Below: the Royal London Homoeopathic Hospital was granted royal patronage in 1948, immeasurably raising the status of homoeopathy

which seems to show the superiority of homoeopathy over orthodox medicine.

There is also a mass of anecdotal testimony that is hard to dismiss. Just try telling a mother who has been desperately worried over a child with a high fever that its temperature fell minutes after taking a homoeopathic drug because the child got on well with the doctor!

Homoeopathy just does not fit in with current ways of scientific thinking. Neither does another group of unorthodox treatments: the flower remedies. To the conventional mind their use as anything other than placebos is sheer lunacy. A flower head, from a wild plant, tree or bush, is placed in water in sunlight for a number of hours. The water then constitutes the remedy. Any matter that may have found its way into the water from the plant can only be minute in quantity. Certain commentators speculate on some kind of 'energy' from the Sun causing remarkable structural changes in the water, changes that happen to have beneficial effects upon sick people.

But we have no real understanding of how these 'medicines', or those of the homoeopaths, could be valuable additions to the physician's armoury of drugs. If they do not work by a straightforward chemical action, the alternatives are to say that their beneficial effects must be imaginary; or that they are real, but work through the patient's confidence in the treatment; or that they are real and psychically caused – that they are paranormal phenomena.

Healing by touch, massage and manipulation is surveyed on page 1914

Does the Sun control terrestrial life in ways that are little understood? GUY LYON PLAYFAIR suggests that the incessant turmoil on the Sun's surface is linked to chemical, biological and social activity on Earth

THE DARK BLOTCHES on the face of the Sun have been observed and recorded for 2000 years. But they have been studied in detail only since the telescope was first used in astronomy, in the early 17th century. We now know that these 'sunspots' come and go in cycles of just over 11 years and that they are closely associated with solar flares, intense outbursts of radiation on the Sun's surface. But why sunspots appear when and where they do, how they are formed, and what effects they have upon life on Earth are matters still far from understood.

Sunspots first become visible as 'holes' in the swirling, granular surface of the Sun. Some of them cluster together to form groups. These can reach enormous dimensions: an average group is several times the diameter of the Earth. Groups can merge into larger groups, with areas of up to 7000 million square miles (18,000 million square kilometres).

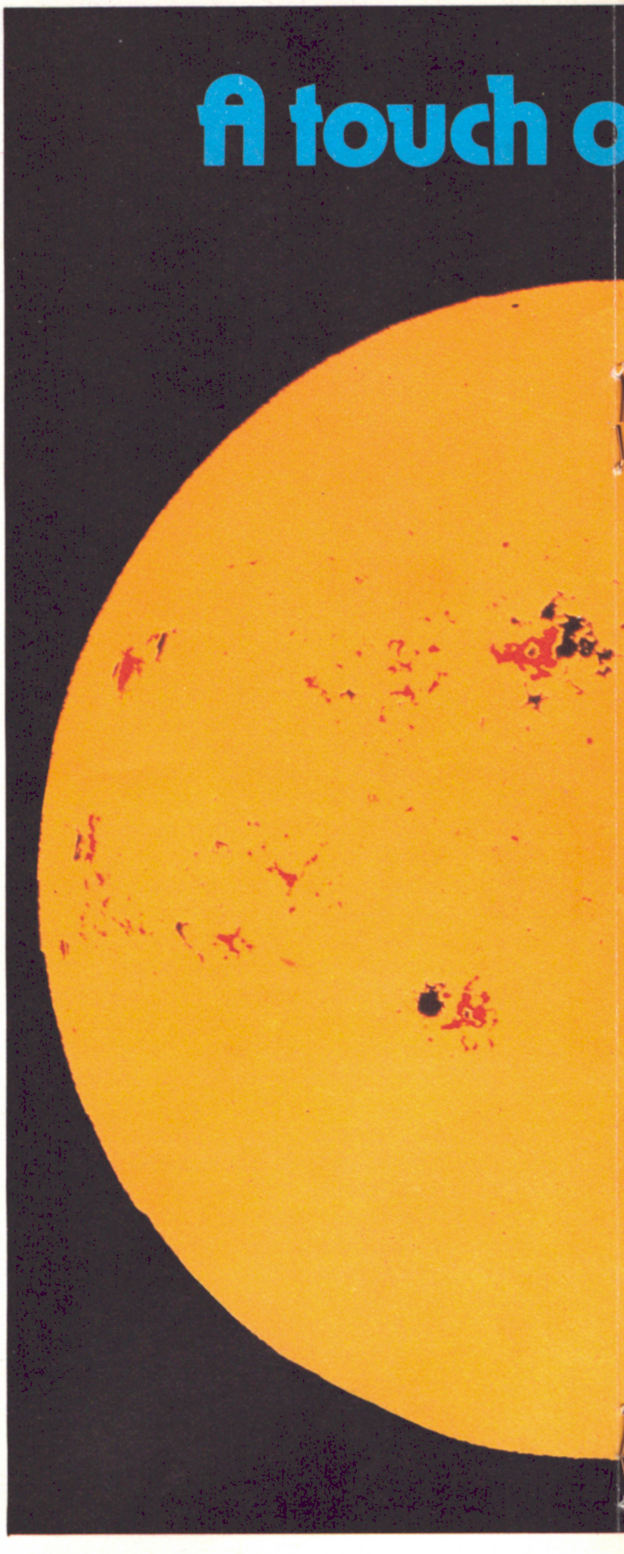
The number and extent of sunspots are estimated by a somewhat arbitrary procedure, and the result is expressed as a number, called the Wolf number after the German astronomer who devised the method. It can vary from 0 to 300, and it can increase very rapidly. From 8 to 18 February 1956, for example, it shot up from 26 to 270 and then in the next 10 days fell back to 125. This fluctuation formed a small peak within the overall cycle.

The main sunspot cycle averages 11.1 years in length, although individual cycles have ranged from 7 to 17 years. There is also a longer cycle of 179 years, apparently related to the movement of the Sun around the centre of mass of the solar system. And there is also a 25-month sunspot cycle, apparently linked to changes in the rate of emission of particles called neutrinos from the Sun's deep interior (see page 1898).

Disturbing the Earth

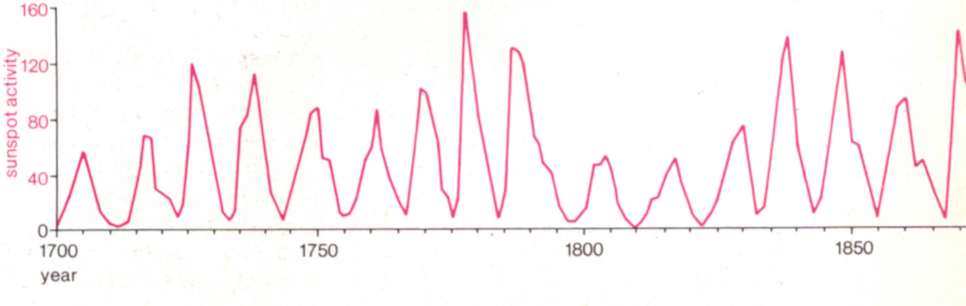
Orthodox scientists recognise that sunspots influence the Earth in certain fairly well-understood ways. Flares are associated with them, and the electrically charged particles that issue from flares cause auroral displays in the Earth's atmosphere. They can also cause sharp fluctuations in the Earth's magnetic field. A major solar flare can even cause minute changes in the Earth's rotation by its effect on the terrestrial magnetic field.

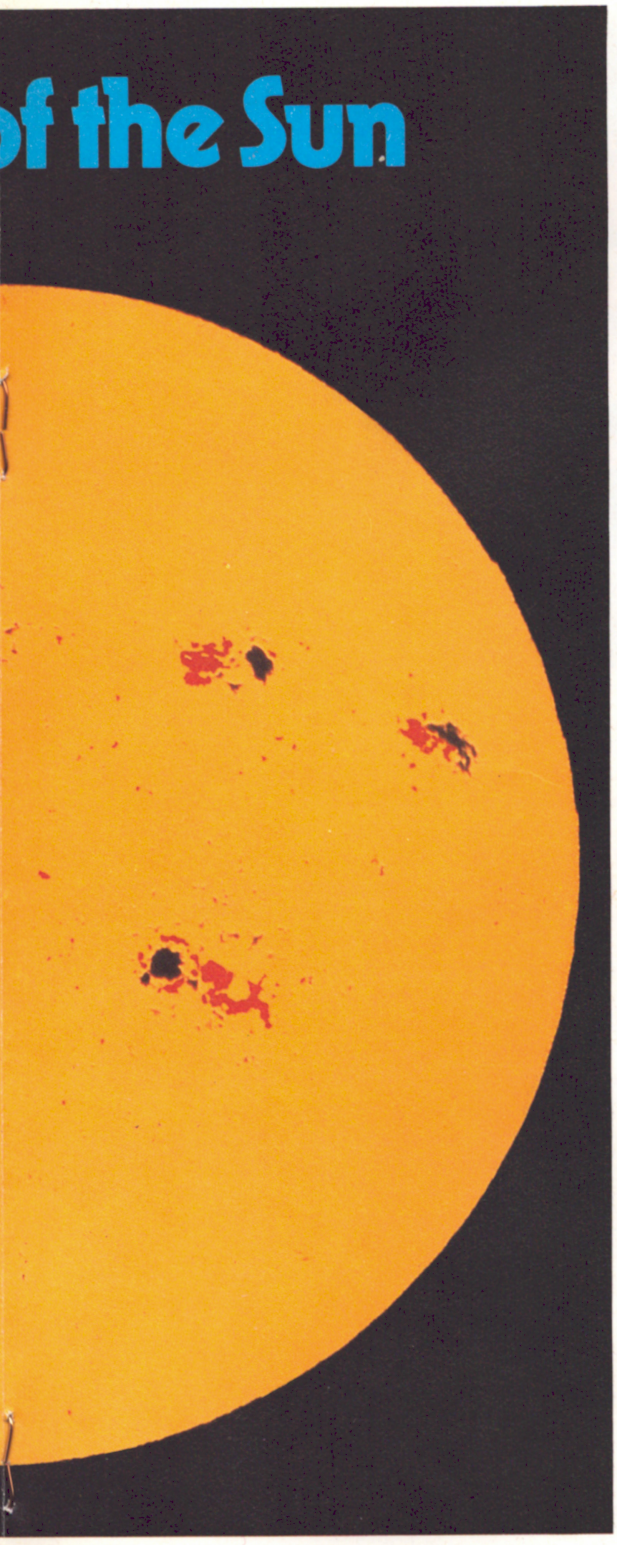
Mankind's most costly attempt to study the Sun was brought to a premature end by sunspot activity. The 80-tonne Skylab space satellite, empty after having been occupied by a number of crews on scientific missions, was circling the Earth in 1979. Solar activity affected the Earth's atmosphere, causing it to

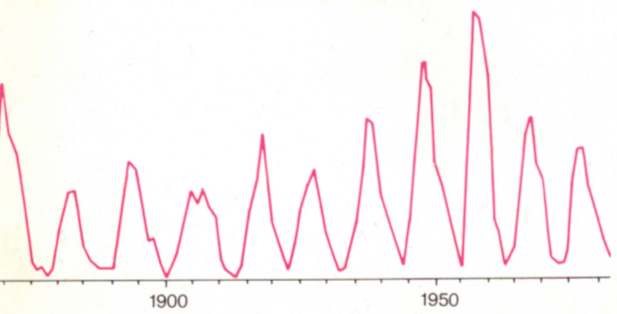


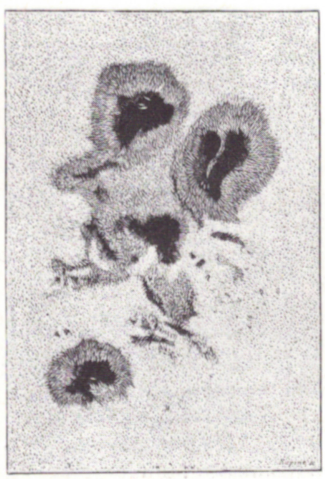
Right: the vast globe of the Sun, capable of swallowing up a million Earths, is blotched by huge sunspot groups. Each group is like a great magnet: the two poles of the magnet are represented in different colours in this computerised picture. Magnetic fluctuations on the Sun influence the Earth's magnetic field – and this in turn may affect us and other living things

Below: the pulse of the Sun. The number and extent of sunspots vary in a cyclic way, reaching a peak roughly every 11 years. Superimposed on this are longer cycles. Flares and other outbursts of activity on the Sun keep rough step with the sunspot number









Soviet scientists have emphasised Sun-Earth links in books such as *The geomagnetic field and life* (top) by A.P. Dubrov and *Complete harmony in nature* (centre) by L.V. Golovanov. They think the Sun's influence is due to the magnetic fields that burst through the surface at sunspot sites (above)

expand and increase the drag experienced by Skylab. The craft fell to Earth in July 1979, long before it could be moved into a higher orbit by the space shuttle, which had not then made its maiden flight.

What else, we might ask, is the Sun doing to us, apart from knocking our satellites out of orbit and putting an occasional brake on the Earth's rotation?

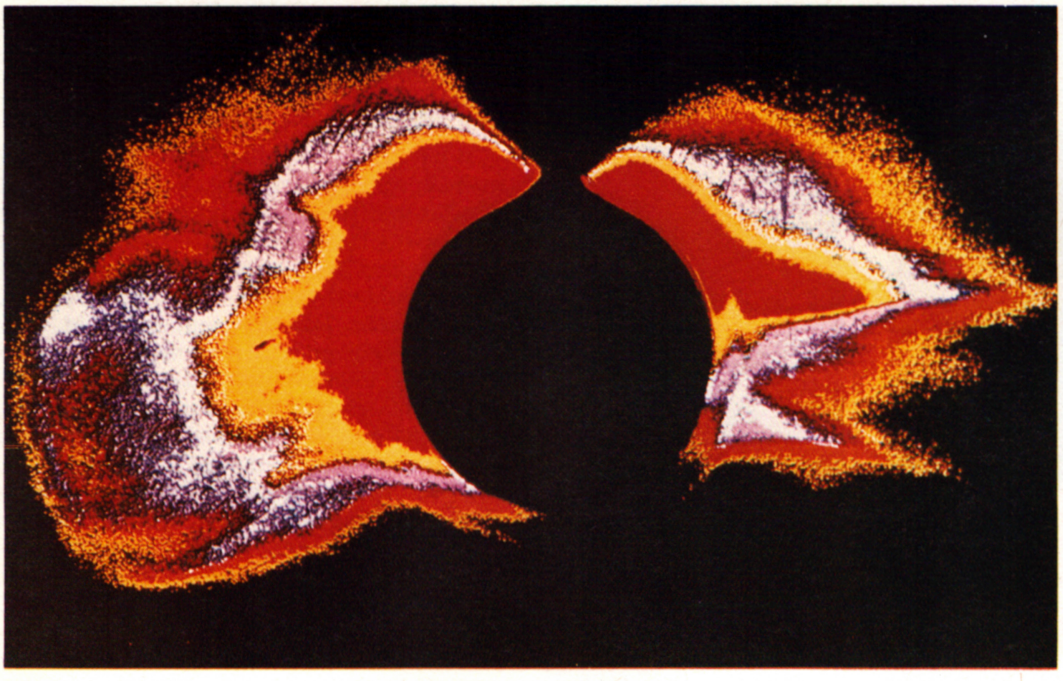
The close correlation that has now been established between the solar cycle and variations in the Earth's magnetic field may imply a corresponding influence on life on the Earth. There is now good evidence that the Earth's magnetic field influences a wide variety of processes in living things from micro-organisms to human beings. Electromagnetic ecology is now a scientific discipline in its own right, in the opinion of Dr A. P. Dubrov, a pioneer in this challenging new field.

According to Dubrov, nervous activity, the skin's electrical resistance, blood count, blood clotting rate, heart and eye function, onset and duration of the menstrual period, and even the incidence of neurosis, epilepsy and schizophrenia can be influenced by variations in the Earth's magnetic field. The mechanisms by which fluctuations in the field, which are known as magnetic storms, affect us are still largely speculative, although much has been discovered since the 1960s about the magnetic fields of the body, associated with the heart and brain.

A living sundial

In experiments that lasted more than 20 years, Dr Maki Takata of Japan showed that blood clotting rates responded precisely and immediately to both short- and long-term cycles in solar activity. 'Man is a living sundial,' he concluded. His findings supported those of Professor Giorgio Piccardi of Florence, in Italy, concerning ordinary water. Piccardi claimed, after conducting a series of thousands of tests throughout an entire solar cycle, that the rate of chemical processes in water exactly matched day-to-day sunspot counts, the occurrence of magnetic storms and the occurrence of solar flares. The process in question was the precipitation from water of a dissolved compound – that is, the substance involved, bismuth oxychloride, came out of solution and formed a solid deposit. Piccardi turned his attention to blood, and found that its coagulation time could be increased, by up to 50 per cent, by shielding it from the Earth's magnetic field. 'All living beings,' he concluded, 'are bound more intimately to the external world than one would think.'

The claims of Takata and Piccardi have been supported by numerous reports from the Soviet Union, where heliobiology – the study of the Sun's influence on life – is an accepted discipline. Scientists there are particularly interested in the Kursk anomaly. In the region around the Russian city of Kursk



Above left: the huge extent of the solar corona, the Sun's 'atmosphere', is revealed in this Skylab computerised picture. The corona is shaped by the Sun's magnetic field

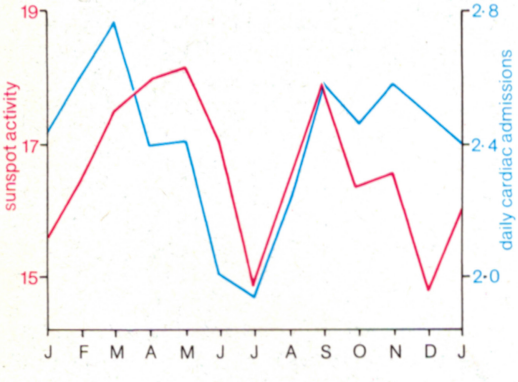
Above: John H. Nelson projects an image of the Sun onto a circular screen at the RCA observatory in New York. Nelson predicted radio 'weather' from sunspots and planetary positions

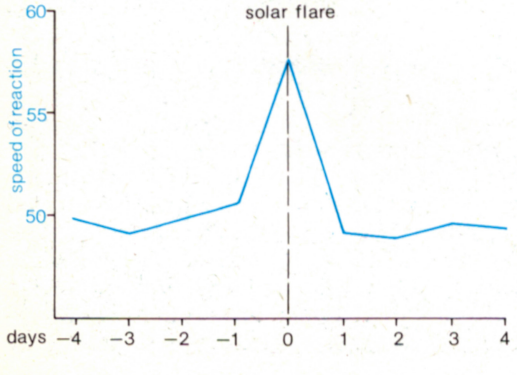
the Earth's magnetic field reaches three times its average strength. The incidence of some diseases is 160 per cent higher than the average, and yields of a wide range of crops are consistently lower.

There have been all too few attempts in the West to follow up Soviet research in heliobiology. However, there have been some surprises: in 1979 a report published in the prestigious scientific journal *Nature* described a significant correlation between fluctuations in the terrestrial magnetic field and emergency cardiac admissions to two Indian hospitals over a six-year period. This lends some support to Dubrov's claim, based on at least 14 Soviet studies, that magnetic storms are 'one of the direct causes of cardiovascular accidents [heart attacks]'.

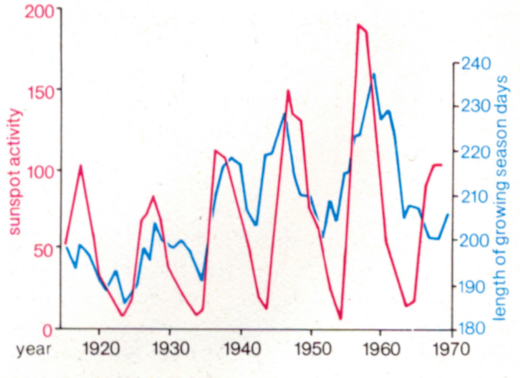
The boldest claims of all in this field were made by the versatile Russian scientist A. L. Chizhevsky, who died in 1964. He studied sunspots for 10 years and correlated their appearance with his own state of health. In 1926 he declared:

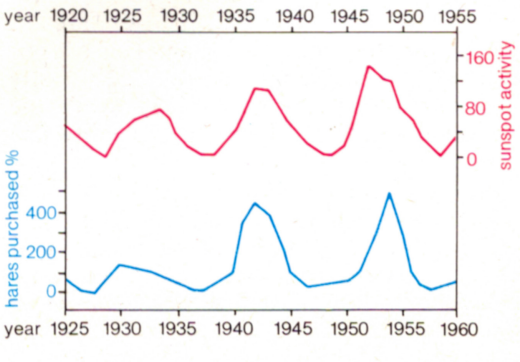
> We must assume that there exists a powerful factor outside our globe which governs the development of events in human societies, and synchronises them with the Sun's activity . . . we must assume that the electrical





Some of the countless suggested influences of solar activity. Admissions of heart cases (blue) at an Indian hospital keep step through the year with disturbances in the Earth's magnetic field (left). A chemical reaction performed in the open went faster on the day of a solar eruption (below left). The number of warm days in the year (blue), measured at a Scottish site, kept in step with sunspot numbers over a 50-year period (above right). Even Soviet government purchases of white hares (blue), valuable for their fur, seem to depend on sunspot numbers, though there is an interval of five years between a sunspot peak and a peak in hare purchases (right)





energy of the Sun is the superterrestrial factor which influences historical processes.

He supported this startling claim with a mass of evidence covering 2400 years. It revealed, he said, the existence of a 'universal cycle of historical events' locked to that of the Sun. Each cycle came in four phases of roughly equal duration. In the first, people were peaceful but apathetic; in the second, new ideas and leaders emerged; in the third (coinciding with a maximum of solar activity) nations reached 'maximum excitability', realising their greatest achievements, good or bad; while in the fourth, everybody became exhausted and slipped into the first phase of the next cycle.

Chizhevsky believed he had found cycles everywhere: in the emigrations of Jews, the outbreaks of diphtheria and influenza epidemics, strikes, terrorism, all major wars and even the voting patterns in Britain. Absurd as some of these claimed correlations may seem, Chizhevsky might not have been surprised by the coincidence of maximum solar sunspot activity and, for instance, the Soviet invasions of Hungary, Czechoslovakia and Afghanistan, the agitation by Polish workers in 1980 and the still officially unexplained influenza pandemics of 1957 and 1968.

Maverick sunspots

One man who put the study of sunspots to practical use was J. H. Nelson, chief analyst of shortwave radio propagation for RCA Communications in New York. He studied them carefully for more than 20 years, until his retirement in 1968. Before the days of satellite communication, radio companies were at the mercy of the Sun, for the state of the ionosphere influenced the range and quality of shortwave radio communication. After careful study of individual sunspots and solar flares, Nelson made an important discovery: some sunspots heralded radio blackouts, while others did not.

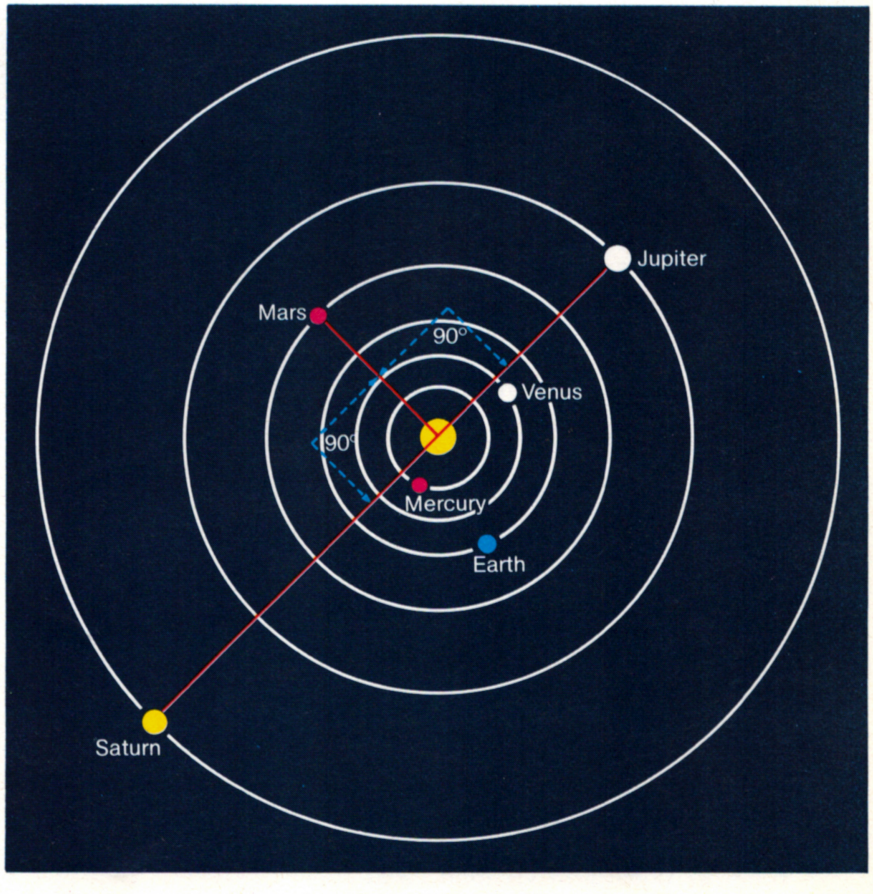
Looking more closely at the disruptive 'maverick' sunspots, as he called them, Nelson made an even more important discovery: they were invariably associated with certain positions of the planets. Nelson was not a professional astronomer, and certainly not an astrologer, but a technician with a practical job to do. By 1951 he was able to announce that there was a direct relationship between bad radio 'weather', severe magnetic storms, and planetary angles. Moreover, the 'maverick' angles of 0°, 90° and 180° coincided with the traditionally unfavourable angles of astrology, while the 'favourable' angles of 60° and 120° were also favourable in astrology.

By taking into account the positions of all the planets, even distant Pluto, Nelson eventually achieved, he believed, an accuracy of 85 per cent in his forecasts of radio 'weather'. His former chief acknowledged his work to have been of enormous importance to his company, the world's largest in this field.

Nelson never discovered the nature of the influence that could cause this relationship. The planets raise 'tides' on the surface of the Sun by their gravitational attractions, but these are minute. Furthermore, the gravitational fields of the planets differ considerably from each other: that of Jupiter is over 30 times stronger than that of Mercury, which is much closer to the Sun, but much less massive than Jupiter. Yet Nelson found that his forecasting system worked only when all the planets were taken into account. Gravity could not give them all an equal 'vote' in this manner. Nelson was led to conclude, somewhat lamely, that 'unknown forces' were involved in the process.

Whether or not the radiation from solar flares reaches us according to a timetable drawn up by the planets, it certainly has a direct effect on our magnetic environment and this in turn is known to affect many biological processes. Such radiation is certainly not the only influence on worldwide events, but it is a cyclic influence, and may determine the timing of a wide variety of events: heart attacks, influenza epidemics, the very moment of birth (see page 634) – or even the rise of political and religious movements. Today, after three centuries of research and speculation, we still cannot give a definite answer to the question asked by Chizhevsky: 'Are we all slaves of the Sun?'

On page 1898: has the Sun gone out without our knowing about it?



The influence of the planets on the Earth's broadcasting conditions, according to the radio engineer J.H. Nelson. When Sun–planet directions make angles of 90° or 180° with each other, as here, sunspots that happen to occur at the same time will cause magnetic 'storms' on Earth. Any planets can be involved, including the three outer planets, not shown here. Angles of 60° and 120°, on the other hand, are associated with an absence of magnetic disturbances

The king and the covens

Many primitive societies practised ritual sacrifices of their kings to ensure the continued well-being of the tribe. Could it be, asks STAN GOOCH, that this practice continued, even in Western Europe, well into historic time?

THE STORY OF THE FOUNDING of the Most Noble Order of the Garter is as follows. Edward III of England (1312-1377) was dancing – either with the Fair Maid of Kent or the Countess of Salisbury according to which tradition one follows – when his partner dropped her garter. The king immediately seized the garter and pinned it to his own leg, saying '*Honi soit qui mal y pense*' – shame to him who thinks evil of this incident. Going still further, in fulfilment of a vow to restore the Round Table of Arthur, the king then founded two groups of Garter knights, 12 for himself and 12 for the Prince of Wales, adopting as their motto *Honi soit qui mal y pense*. These two groups, plus the respective leaders, form two bands of 13. The rise of this number appears to have been deliberate: it is significant that the king's mantle as Chief of the Order is powdered over with 168 garters. These, together with the one worn on the leg, make a total of 169; that is 13 times 13.

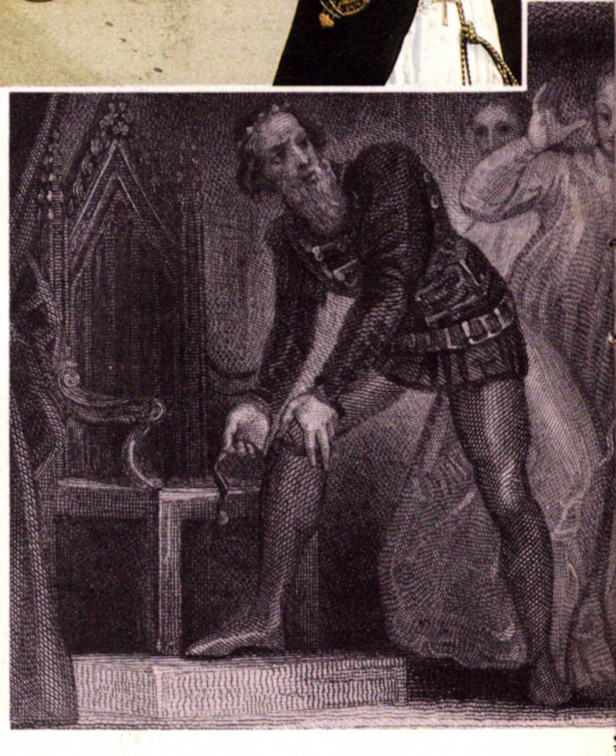
The garter or cord as the mark of a sorcerer is known from oldest antiquity, and can be seen in prehistoric cave paintings of sorcerers. In the medieval witch trials in France, also, it was frequently stated that the leaders of each coven wore a garter as a sign of rank.

Some 40 years before the founding of the Order of the Garter, there had been among the charges levelled at the Knights Templar by the Inquisition that, when worshipping the severed heads or skulls at their secret rituals, 'they surrounded or touched each head of the aforesaid idols with small cords, which they wore around themselves next to the shirt or the flesh.'

There is even a legend linking King Arthur with the sorcerer's garter. According to local folklore, King Arthur and Guinevere sleep in a cave under the castle of Sewingshields in Northumberland. A farmer allegedly once found his way into this cave, and near the entrance saw a stone sword, a garter and a horn. He took up the sword and cut the garter, but his nerve failed when he saw the sleepers awakening. As he ran out of the cave he heard King Arthur say:

O woe befall the evil day
that ever the witless wight was born
who took the sword, the garter cut
but never blew the bugle horn.

The most obvious explanation of Edward III's behaviour in the incident that led to the founding of the Order of the Garter is that he was covering up some kind of sexual liaison with the lady concerned. There is another interpretation, however: the time was marked by a number of witch trials involving members of the aristocracy in which the noble leaders went unpunished while their followers were imprisoned or executed. Edward III could have been putting under his personal protection a woman who was at risk from these infamous witch trials. He could also have been announcing publicly to a secret band of his pagan followers that he himself was the grand master of the witches they revered.



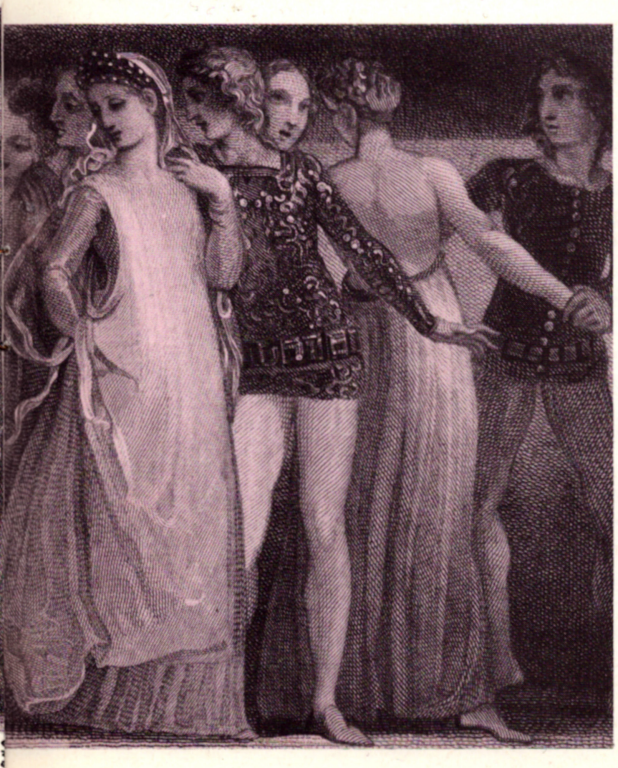
Above: the knights of the Most Noble Order of the Garter in procession to St George's chapel, Windsor. Legend says that the order was founded after King Edward III (1312–1377) picked up a garter that his dancing partner had inadvertently dropped (right). Exclaiming '*Honi soit qui mal y pense*', or 'Shame be on him who thinks evil of this incident', he picked up the garter – and went on to found the Order of the Garter, adopting his remark as its motto. The garter is an ancient sorcerers' symbol: could Edward have been announcing his sovereignty over British witches?

There is an intriguing connection between Edward III and the Knights Templar. In *The holy blood and the Holy Grail*, Michael Baigent, Richard Leigh and Henry Lincoln report a very curious incident, known as 'the cutting of the elm'. It took place in 1188, and marked the formal break between the Order of Sion and the Order of Templars, which had hitherto been synonymous. Adjacent to the Templar fortress of Gisors was a field, a place sacred since pre-Christian times, and which had often served as a meeting place for the kings of England and the kings of France. In the centre of this field was an ancient, gigantic elm. On this particular occasion a quarrel, whose details we do not know, arose between Philippe II of France and Henry II of England. A fight ensued, in which blood was shed, and one of Henry's sons, Richard Lionheart, attempted to defend the tree – but the French succeeded in cutting it down. At this point, it seems, the Order of Sion split from the Templars, changed its name to the Priory of Sion, and adopted as a sub-name 'Ormus'. *Orme* is the French for elm.

What all this signifies is impossible to say, but it seems that there is a covert connection between Henry II and the founding of the Priory of Sion. And, some 60 years later in 1252, Henry III, the grandson of Henry II, was publicly threatened by the Templars: 'So long as thou dost exercise justice, thou wilt reign. But if thou infringe it, thou wilt cease to be king.' This statement amounts to an extraordinary threat; the implication is both that the king has somehow offended the Templars, and is also somehow beholden to them. Finally, a further hundred years later, we find Henry III's great-grandson, Edward III, founding the Order of the Garter.

There are many more hints of connections between Templars, the Priory of Sion, witches and the nobility of England and France. Let us now dispense with hints and bring a whole section of the central mystery into the open.

In the 1920s Margaret Murray, a distinguished Egyptologist, enraged a previously admiring academic world with the publication of her two books *The witch cult in western Europe* and *The god of the witches*. In her view, the study of the religion of pre-Christian times had been completely neglected – this was slightly unfair to J. G. Frazer's *The golden bough* (1922) – and she proceeded to redress the balance. The standard religion of Europe and the Middle East, she claimed, had been close to what is today called witchcraft. It involved the worship of the Horned God or Goddess, who ruled over both good and evil, and was the creator of both. In essence the original paganism-witchcraft was a fertility religion, pre-dating the discovery of agriculture and farming methods, and concerned with producing abundance in game animals and wild plants.



Top: a fragment of a limestone tablet from Ur, in ancient Babylonia. The king is pouring libations to the Moon god Nannar. The religions of many ancient societies involved worship of the Moon in the form of the Horned God or Goddess – as in Celtic mythology, where Cernunnos, 'the Horned One' (above, flanked by a wolf and a stag), rules over the entire animal kingdom. The Horned God or Goddess was essentially a fertility deity, neither good nor evil. It is likely that the personification of the Satan of the Christian Church as a horned creature is the result of a deliberate attempt to stigmatise the Horned God

In the centuries following Christ, the kings and rulers of Europe were gradually persuaded to declare their public support for Christianity, but Murray suggests that even in post-medieval times the mass of people and many of the nobility continued to worship the old gods in the old ways. Murray comments that 'even in the highest offices of the Church the priests often served the heathen deities as well as the Christian God and practised pagan rites.' Such a view is supported by the mystery labyrinths inlaid on the floors of French cathedrals, by the discovery in the 1940s of a stone penis carved inside the altar of an English church, and a complete Celtic altar bearing the names and portraits of the Celtic gods (including Cernunnos, the horned stag god, flanked by a bear) built into the choir of Notre Dame

church in Paris; or even by Robert Graves's evidence, presented in *The white goddess*, that the old 13-month year was still commonly observed in medieval rural Britain.

It is against the formidable background of the wide-scale continuance of pagan tradition that we must seek to understand the Templars, the Priory of Sion, *qabalists*, Cathars, alchemists, the witches themselves and many allied manifestations.

The king of the world

Baigent, Leigh and Lincoln have demonstrated some of the many interconnections between Cathars, gnostics, Templars, *qabalists* and others. Nicolas Flamel, Grand Master of the Priory from 1398 to 1418, was also a famous alchemist. The documents found at Rennes-le-Château (see page 161) prominently feature the phrase *rex mundi* ('king of the world'). This concept is a notion central to all forms of gnosticism, of which the sect of the Cathars in France represents one variant. These sects held that God, being pure spirit and goodness, could not have produced the world, which is both material and at least partly evil. The world, Christ and mankind were held to be the product of another entity, capable of immersion in matter. This usurper god, or rex mundi, has much in common with Satan, Lucifer and ultimately with the Horned God of paganism.

Below: a ritual sacrifice of a goat, made by the Dinka tribe of the Sudan, north-east Africa, to ensure the recovery of a sick man. Most primitive tribes practise animal, and sometimes human, sacrifice. The ancient Druids of Britain were one such society; this highly romanticised engraving (below right) shows a mother's grief as her son is sacrificed during a Druid ritual

Again and again in *The holy blood and the Holy Grail*, we find references to the involvement of Jewish thinkers in all these mystery and semi-mystery movements, including persons such as Nostradamus himself. And not only outright mystical traditions like the Jewish *qabalah* are involved. Orthodox Judaism also has many connections with the matters we have been discussing. For example, orthodox Jewish thought holds there to be 13 central qualities to God. These (derived from Exodus 34:6-7) are: (1) Lord, (2) God, (3) merciful, (4) gracious, (5) long-suffering, (6) abundant in goodness, (7) abundant in truth, (8) keeping mercy, (9) keeping faith to the thousandth generation, (10) forgiving iniquity, (11) forgiving transgressions, (12) forgiving sin, and (13) acquitting. This list obviously involves some forcing to arrive at the number 13. These 13 attributes form the central part of all Jewish penitential prayers.

The power of the number seven in both Judaism and Christianity is manifest (see page 1327); the sacred Jewish seven-branched candlestick, the Menorah, which is described as 'the seven eyes of God which range through the whole earth' and 'the seven stars', appears to have some connection with the seven stars of the Plough – part of the Great Bear constellation.

Unlike the number seven, however, the number 13 seems to have undergone considerable purging from the text of the Bible.

Left: detail of a carving showing the murder of Thomas à Becket in 1170. The anthropologist Margaret Murray has suggested that the ancient practice of ritually sacrificing important figures in order to ensure continued fertility of crops and livestock continued into historic times – and that among its victims were Becket and (right) William Rufus (1087–1100), who died in suspicious circumstances while hunting. There is a further intriguing possibility: that the ritual murderers are guardians of the old religion, descendants of the last king of the Merovingian dynasty, Dagobert II – whose trepanned skull (below right) is now lodged in a convent at Mons, Belgium – himself a descendant of Christ

Nevertheless, it is clear, for instance, that Israel is regarded as yet another group of 13 – Jacob and his 12 sons. As one religion succeeds another, those elements of the old religion that can be assimilated become part of the new religion; the remaining elements are strongly suppressed. It seems reasonable to suppose that the purging of the number 13 from the Bible indicates that it was of significance in the religion that Judaism, and later Christianity, replaced – perhaps the old pagan religion of Moon worship, in which the number 13, the number of full or new moons in the 13-month year, was held in great reverence.

Blood sacrifice

Another piece of evidence for the nature of the old religion, not cited by Baigent, Leigh and Lincoln, is the persistent medieval story that Jews used the blood of a Christian child to make their Passover bread. Of course, they did nothing of the kind. The fact of the matter is that Jews are forbidden to consume blood in any form, so that all meat must be bled dry by ritual slaughter, and an egg with a speck of blood in it must be thrown away. But this very strong prohibition of blood in the Jewish religion suggests that back in pagan times blood was at the very centre of their religious practice. Margaret Murray, indeed, assures us of the importance of allowing the blood of a human sacrifice to strike the earth in pagan ritual. Much to the point here is also that the words 'blood', 'bless' and 'blossom' all come from the same root: again the fertility element is quite clear.

Could this be a key to the puzzle? Perhaps. The many strands of the central mystery at last begin to form a coherent and recognisable pattern.

New ships were originally sanctified by sacrifice; and we still bless a new ship by breaking a bottle of champagne over the bows. The victim was doubtless once a human being – for human sacrifice was undoubtedly at the heart of the old religion. The most important sacrifice of all was that of the king. The chosen king had to die – originally every year, subsequently every seventh or ninth year – in order to ensure the continuing fertility of the tribe itself, of the game and the wild plants. Probably Murray's most outrageous claim is that many kings and notables of historical times were ritually killed by the witch cult. She cites, in Britain, King Edmund (AD 946), Edmund Ironside (1016), William Rufus (1100) and Thomas à Beckett (1170); and in France Joan of Arc (1431) and Gilles de Rais (1440). Could it be that such ritual killings did indeed continue in the heart of Western society far into historic time?

On page 1906: could Christ's death have been a ritual sacrifice?

A UFO comes to town

PHOTOGRAPHS OUGHT TO BE good evidence of a UFO sighting, but they are not always so. Sometimes, for example, a UFO can appear on a picture when the photographer did not actually see one. Sometimes, too, the object appears different on the photograph from the way that the observer remembers seeing it.

Sightings of UFOs over large cities are rare, but Anthony Russell's photographs show that he saw one in the London suburb of Streatham.
CHARLES BOWEN reports

So the evidence from even genuine pictures is often ambiguous.

In this case, the photographer remembered the UFO as different from the picture. And, after all, if the UFO was in such a highly populated area as south London, why was there only one witness?

'Strange shadow effects'

Close encounter of the first kind: Streatham, London, 15 December 1966

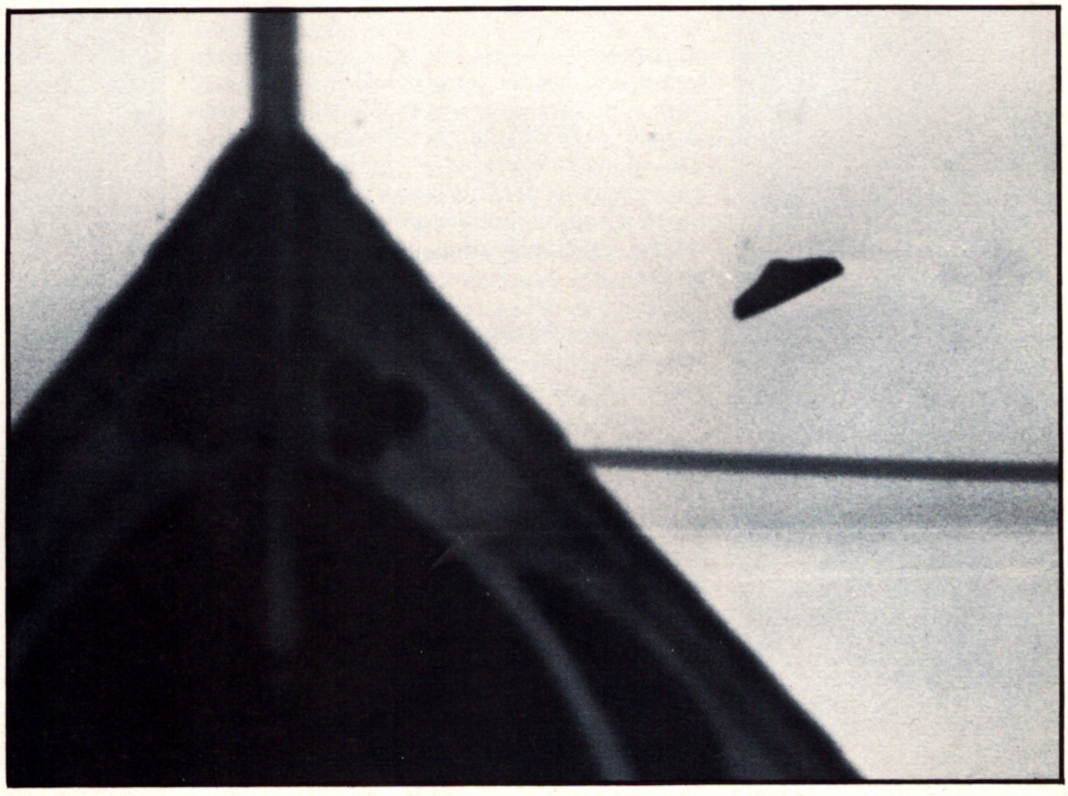
Sightings of true UFOs over London are a rarity. Many reports are made, but these often prove to be misidentifications of lights in the sky. This is hardly surprising considering the great volume of aircraft flying over the city on the way in or out of Heathrow airport. There are also many other aircraft flying over at great height and, at night, satellites that reflect the rays of a Sun already well below the western horizon. Few who report sightings in fact fulfil the condition of having seen a UFO at close range – near enough to be classified as a close encounter of the first kind.

One sighting towards the end of 1966, however, may have fulfilled this condition – and the report was reinforced by photographs. These photographs seem to show remarkable changes in the shape of the images, and the changes cannot be due entirely to changes of aspect of the photographed object.

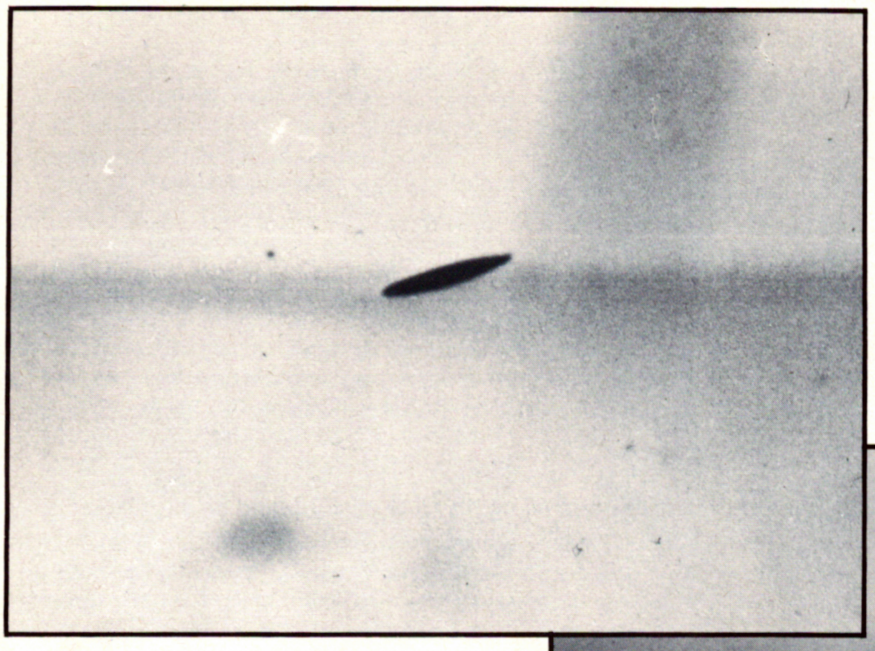
The day of the sighting was Thursday, 15 December 1966. It was one of the shortest days of the year: the Sun set at 3.53 p.m. The weather was unpleasant – misty, dull and damp, with drizzle, rain and low cloud – and maximum visibility was 2 miles (3 kilometres).

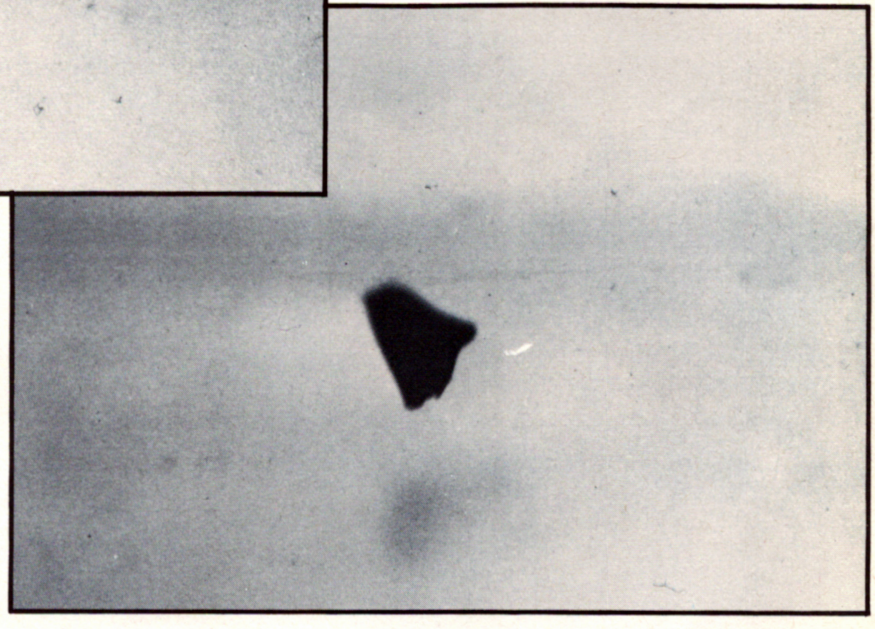
At approximately 2.30 that afternoon, Anthony Russell was standing by the open window of his flat in Lewin Road, Streatham, south-west London. Lewin Road is at the southern end of Streatham High Road and just west of Streatham Common. The window by which Russell stood faces approximately north-north-west. A keen photographer, he was testing for resolution two new 2 × converters for his Zenith 3N single lens reflex camera (focal length 135 millimetres increased to 270 millimetres by one converter). During the testing, Russell was aiming the camera at the gable of a house on the far side of Lewin Road, about 28 yards (26 metres) from the lens. The camera was loaded with 35-millimetre Gratispool colour film.

Suddenly Russell became aware of an



This is the first photograph taken by Anthony Russell of a UFO that he sighted from his flat window. There is a hint of an efflux from the base of the object on the right. The bar seen on the gable of the house across the road supports a chimney that is off camera





object in the sky falling suddenly, stopping dead, and then drifting slowly earthwards with a pendulum-like motion. Amazed at first, but rapidly collecting his wits about him, he 'slapped the camera to infinity' and began snapping. He thought he got 12 photographs. The last two shots were taken as the object moved away, at first slowly and then at much greater speed.

The witness had had limited contact with UFO literature before in as much as his father had designed a cover for the book *Flying saucers have landed* (1953) by George Adamski and Desmond Leslie. Russell did not think much of the book and, after meeting Adamski, thought even less of the subject. But his scepticism received a jolt as he stood photographing the strange object in the sky.

Russell left the rest of the film in the camera so that he could take photographs at Christmas and sent it away for processing after the holiday period. In the meantime he told a few friends what had happened. They were inclined to laugh off the incident, but he felt it was worth investigating. He did not wish for the publicity a newspaper might have brought him, but he was not sure who would be genuinely interested. Fearing he would get short shrift from established bodies such as the Royal Astronomical Society or the Royal Aeronautical Society, he looked through the telephone directory under the word 'flying' and so happened on *Flying Saucer Review*. He wrote to the magazine, explaining what he expected to be found on his pictures when the film was returned, and the magazine arranged for R.H.B. Winder, an engineer, and Gordon Creighton to help in an investigation once the pictures were available for study.

From the start of the investigation there was a measure of disappointment for the witness, for only 3 of the 12 frames came out well. A fourth – the last to be taken – revealed a dim shape that had little definition. Russell was puzzled by the object's apparent changes of shape because he did not recall seeing such changes. He recalled seeing only changes of aspect of the UFO.

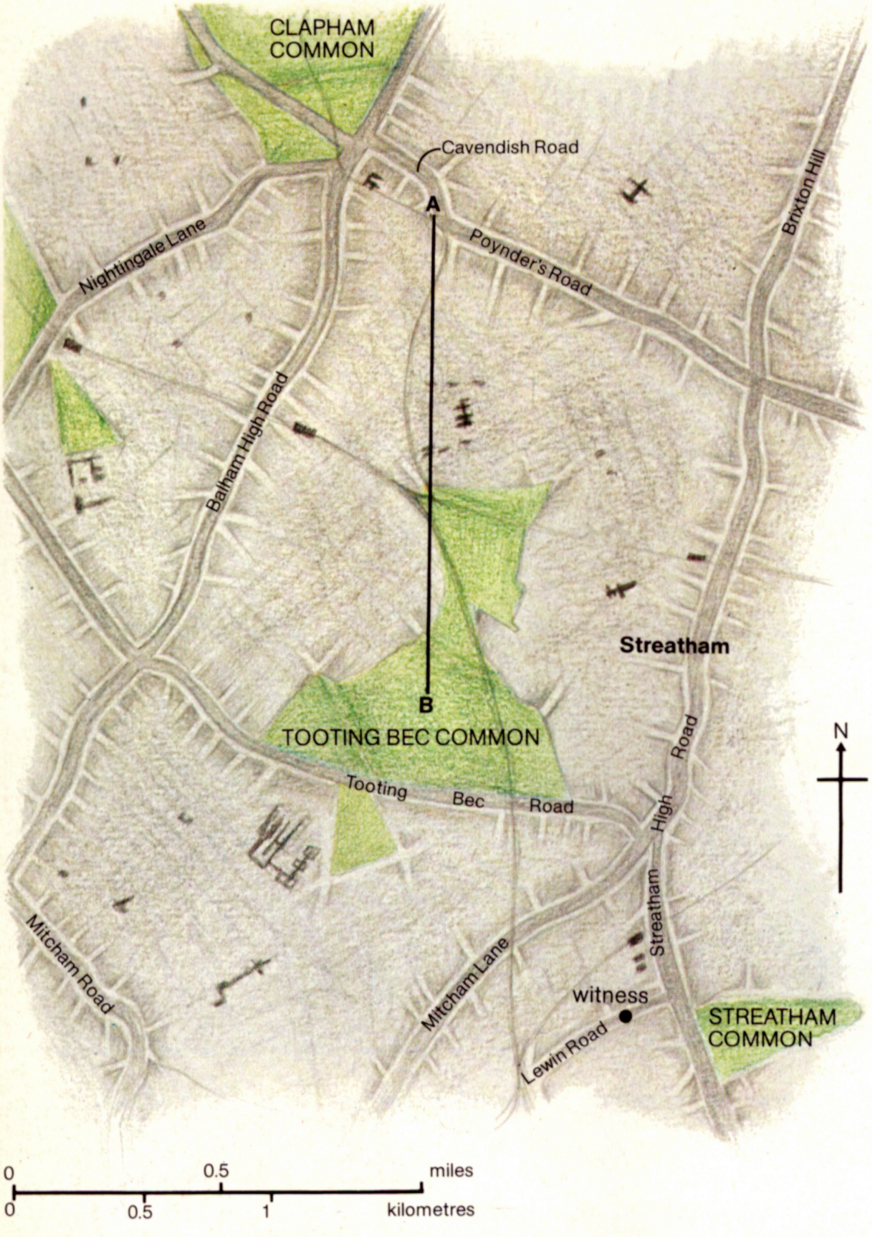
It is reasonable to assume that the eight blank frames were due to the speedy rolling on of the film between shots in the witness's excitement, occasioned by an incident that lasted two minutes at most. Here is a reconstruction of those two minutes:

After the initial swift descent and abrupt halt of the UFO, Russell took his first two shots. He used the single converter that he had been testing, set at 1/125 second (f/5.6). He then hurried away from the window and fitted the second (Panagar) converter. With a focal length now of 540 millimetres, he set the exposure at 1/25 second (f/11). Returning to the window, he saw the object 'stand on end' and present its full circular shape to him before turning through 90° about a vertical axis until it was edge on. The UFO then started to move to his right. During all that period, Russell shot only two successful snaps, though he could not have known this at the time. It was during the moment of movement to the right that the third good picture was captured. Then the fourth followed as the UFO accelerated away. By the time Russell reset the camera for the next shot, the object had gone.

After investigation, the researchers handed the transparencies to *Flying Saucer Review*'s photographic consultant, Percy Hennell. After examining them he made plate negatives from the first three. He stated that they were 'genuine photographs of an object in the air, and, in the case of the first, some distance beyond the house opposite the position where the photographer stood'. He could detect no signs of the transparencies

Top: the second photograph shows the UFO edge-on, which emphasises its disc shape. The expert who examined the photographs for fraud could not explain the strange shadow effects on this shot

Above: the third photograph caught the UFO in a slanted position, perhaps in the ascent since it was taken just before the object sped away. When enlarged, the picture revealed a marked efflux to the left



having been tampered with. Later the transparencies were projected onto a 12-foot (3.5-metre) square screen. Close inspection revealed nothing untoward.

The investigators ascertained that the object was not luminous, and that it was virtually impossible for the witness to distinguish any colour owing to the fact that it was being viewed as a dark object against a light background. Russell merely suggested it might have been maroon.

The first photograph shows the gable of the house opposite Russell's flat with a near-horizontal bar to the right that acts as a support for a chimney that is off camera. Winder estimated that the bar would have been at an angle of elevation of 10° from the lens of the camera. Russell thought the object might have been anything up to a mile (1.6 kilometres) away. In the photograph there is a hint of an efflux streaming to the right from the base of the UFO – a feature more clearly seen when the image had been enlarged and viewed on a projector.

Winder pointed out that the silhouetted image of the UFO on the first photograph bore a remarkable similarity to the shape drawn by Police Constable Colin Perks after his sighting of a UFO at Wilmslow, Cheshire, on 7 January 1966, at 4.10 a.m. Constable Perks was checking the back door of a shop when he heard a high-pitched whine. He turned and looked over the car park behind the shops, which was east. There he saw a solid-looking object – stationary – some 35 feet (10 metres) above the grass of the meadow beyond the car park. It was about 100 yards (90 metres) from him. Perks said the UFO's upper surfaces glowed steadily with a greenish-grey colour, a glow that did not hide the definite shape of the object. He said the lines in his sketch 'represented rounded, but fairly sharp changes in the profile, matched by shading in the glow'. Nowhere could he see openings like portholes or doors. His estimate of a diameter of 30 feet (9 metres) for the base was based on a mental comparison with a 30-foot (9-metre) long bus. After about five seconds the object moved off east-south-east with no change of sound. Then it disappeared.

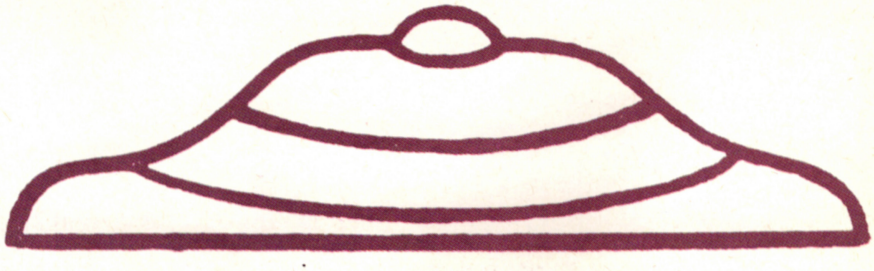
Russell's other photographs brought no further comparisons to mind. In the second picture there are strange shadow effects, particularly one that slants away in the '7 o'clock' position. Hennell could offer no explanation for this.

The third photograph seems to have been blurred either by the motion of the object – it was beginning to move away – or by camera shake. An efflux effect is also noticeable to the left of the object. This in fact was quite pronounced when the picture was enlarged.

Judging from Russell's position and the 2-mile (3-kilometre) visibility limit, the object appears to have been somewhere on a line from the sighting point via Tooting Bec Common to Cavendish Road.

A contact at Heathrow airport told the investigators that the object was not observed on the radar screens, but it is possible that it missed the radar sweep by virtue of its plummeting fall in between sweeps.

The Ministry of Defence (Air) was asked about weather balloons on 15 December 1966. The answer was that four were released in south and south-west England earlier than the sighting, but that they would not have migrated to the London area.



Top: map of the area in which Russell spotted the UFO over Streatham. The object appears to have been somewhere along line A–B

Above: a drawing made by PC Colin Perks of the UFO he saw in Cheshire about a year before Russell's sighting. The two reports were strikingly similar

continued from back cover

a wage of £3 3s 2d a week.'

Haworth was then told that he was to wake up on 22 June 1981 – exactly a year ahead – and he was made aware of Geoffrey Newson's presence. 'I'd decided to tell Milton that I'd been living in the States for the past year and that I needed to catch up on what had been happening in England,' explained Newson. 'He was very suspicious and even accused me of holding a conversation with him just the week before in the office!'

But Newson pressed on, reminding Haworth that a year ago he had been looking forward to the British Golf Open. Who had won, he asked? 'Oh, Sevvy [Ballasteros] again,' replied Haworth. How did Britain make out in the Olympics? 'I think we had three golds: Coe, Wells and that chap from Blackburn in the 12-bore shooting. Coe beat Ovett, you know.' What about the American hostages in Iran? 'Where've you been, Geoffrey? They got out early in the New Year.'

Haworth also said that Bjorn Borg had won his fifth Wimbledon title by beating Jimmy Connors; that Martina Navratilova had beaten Tracy Austin in the women's final; that Denis Healey became leader of the Labour Party in October 1980; that Jimmy Carter won the American presidential election in 1980, and that J.R. had been shot by his wife, Sue Ellen, in the television programme *Dallas*. A total of 55 minutes had elapsed before Haworth was brought round.

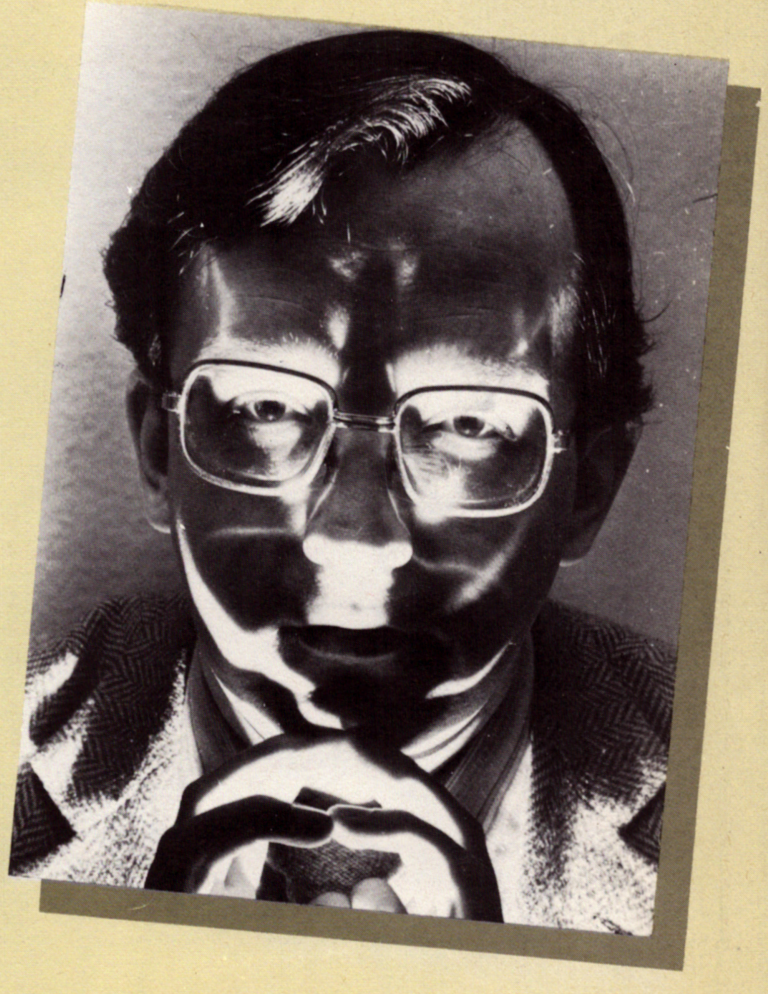
Many of the 'predictions' made by Haworth were either close or spot on. The American hostages, for example, *were* released in the New Year of 1981 and Borg *did* win his fifth Wimbledon title in the summer of 1980. Coe did beat Ovett, although Britain won five gold medals not three, and the 'chap from Blackburn' didn't even win a bronze. Jimmy Carter lost the American election to Ronald Reagan, and every *Dallas* fan knows that J.R. was shot by Sue Ellen's sister Kristin. William Rogers won the British Golf Open, and Evonne Cawley became Wimbledon ladies' singles champion of 1980.

Can one take the idea of hypnotic progression seriously? As we all know, Michael Foot became leader of the Labour Party in late October 1980, with 139 votes to Healey's 129. The first ballot for the new leader actually showed Healey with a majority of 112 votes to Foot's 83. Could Haworth have foreseen only the first part of the election? During his 'interview' under hypnosis, Haworth also mentioned that Liverpool would win the FA cup and remain top of the first division. Later, upon waking, he said he thought that they probably wouldn't. 'My forecast probably came about because I see Liverpool play more than any other team, and I admire them,' he said. His prediction in his normal state was accurate – West Ham beat Arsenal in the FA cup. But Haworth had also predicted that Liverpool would remain top of the first division – and they did.

Features writer Geoffrey Newson told *The Unexplained* that it was the first time he had witnessed the future from the past. 'It was an amazing experience,' he said. 'I must confess that after we had done the story I never checked up to see if Milton had predicted correctly except for the Borg win. And that wasn't bad, was it?'

As for Haworth's 'past life', *The Unexplained* did a little checking and discovered that Showerings have never owned a brewery in Salisbury but are based in Shepton Mallet, and have been since 1932. A spokeswoman for the company said that the average wage for a cooper in 1936 tallied with Haworth's assertion that he received £3 3s 2d a week. And what of Ernest Walters? Did he ever work for the company? We were unable to find out, for Showerings do not possess employee records dating that far back. So, if anyone knows of an Ernest Walters who worked as a cooper for Showerings in 1936, do let us know!

Richard Morgan, who conducted the time experiment



Smile recording studios in Stretford near Manchester is perhaps an unlikely setting for an experiment into progressive hypnosis. But studio owner Steve Foley's partner is hypnotist Richard Morgan – who has been recording a series of time experiments on Smile's superior equipment.

To recap briefly: regressive hypnosis takes subjects into the past, while progressive hypnosis is a journey into the future. Manchester *Daily Express* features writer Geoffrey Newson decided it was a topic worth covering and promptly sent his first guinea-pig, reporter Alun Rees, to Richard Morgan. Unfortunately Rees failed miserably in the attempt at progression, although he was fairly successful at regression. Morgan says that, in his experience, about 2 in every 10 subjects fail in the progression process.

Newson's second guinea-pig, photographer Milton Haworth, arrived at the studios for a session on 22 June 1980. In front of Steve Foley, the actor Anthony Schaeffer, Alun Rees and Geoffrey Newson, he was put into a light hypnotic state. As in all his time experiments, Morgan regressed his subject before taking him into the future, taking him back to September 1956. Haworth recalled being outside his school, St Peter's secondary school in Blackburn, the only boy not wearing school uniform. (Speaking to Newson later, Haworth recalled that he was quite rebellious in those days and had adamantly refused to wear a uniform.)

Morgan then regressed the subject further. He was told it was 5 October 1936 – nine years before his birth. 'It was incredible,' enthused Geoffrey Newson. 'Milton actually changed before my eyes! His voice changed to a soft burr and he informed us that his name was Ernest Walters and that he was speaking from a river bank at Salisbury, Wiltshire. He was a 27-year-old cooper who had been apprenticed in Tadcaster and had travelled to Salisbury to make barrels for Showerings Brewery for

Richard Morgan progresses Milton Haworth, while Steve Foley looks on

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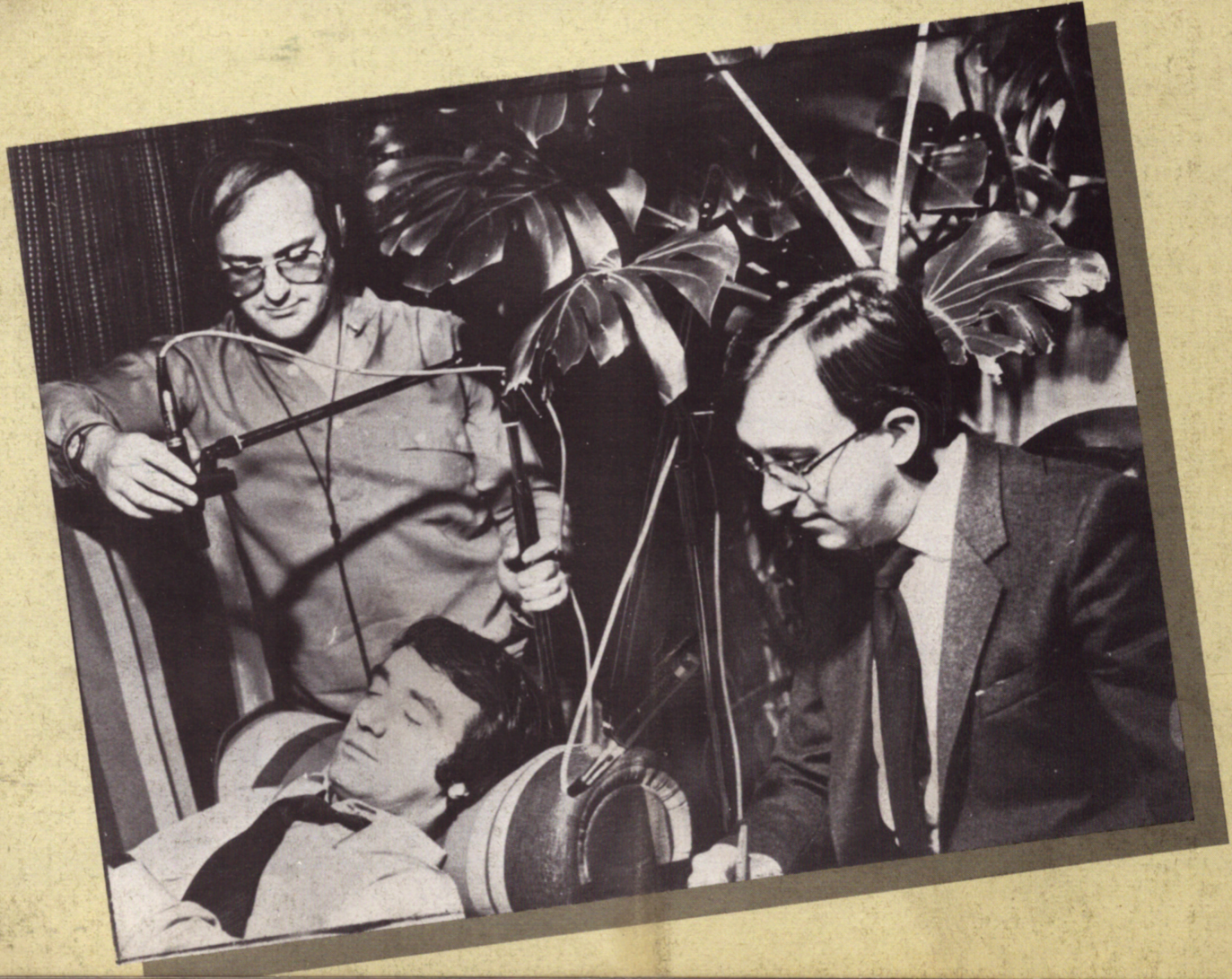
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